

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-19 (cancelled)

20 (previously presented). A process for fabricating an electrically modulated programmable mask comprising at least one optical modulator operable at one of the lithographic wavelengths ~~wavelengths~~ of 248nm, 193nm or 157nm, said process comprising:

providing a substrate having electrical control circuitry thereon; and

applying at least one type of semiconductor nano-particles with a bandgap to at least a portion of said substrate to thereby provide optical modulation at one of 248nm, 193nm or 157nm.

21-26. (cancelled)

27. (original) The process of claim 20 wherein said substrate comprises silicon-on-sapphire wafer in which sapphire is transparent to 248nm, 193nm and 157nm light.

28-39. (cancelled)

40 (new). A process for fabricating an electrically modulated programmable mask comprising at least one optical modulator operable at the lithographic ~~wavelengths~~ wavelength of 365nm, said process comprising:

providing a substrate having electrical control circuitry thereon; and

applying at least one type of semiconductor nano-particles with a bandgap to at least a portion of said substrate to thereby provide optical modulation at 365 nm.